

Listing of Claims

1. (Currently Amended) An AAL2 switch for multicast, comprising:
 - a plurality of receiver circuits each receiving and demultiplexing an AAL2 packet for ~~conversion~~ ~~converting~~ into at least one common part sublayer (CPS) packet;
 - a plurality of memories configured to store CPS packets, said at least one CPS packet stored in one of the memories at a predetermined address indicated by a routing tag allocated to said at least one CPS packet by a corresponding one of the receiver circuits; and
 - a plurality of transmitter circuits each coupled to the plurality of memories to that search the plurality of memories, convert the searched CPS packet into an AAL2 packet ~~by multiplexing~~, and transmit the AAL2 packet,wherein ~~said at least~~ one memory stores information indicating an indication that said at least one CPS packet is to be multicast through two or more transmitter circuits and wherein the two or more transmitter circuits search the memories to locate the multicast information and transmit the AAL2 packet based on the search results.
2. (Currently Amended) The AAL2 switch for multicast of claim 1, comprising:
 - a first table, coupled to each of the plurality of receiver circuits, for managing virtual path virtual channel (VPVC), channel identifier (CID) and the routing tag information; and
 - a second table, coupled to each of the plurality of transmitter circuits, for managing storing conversion information including the VPVC and the CID.

3. (Currently Amended) The AAL2 switch for multicast of claim 1, wherein a new virtual path virtual channel (VPVC) and ~~[[a]] the routing tag information~~ for said at least one CPS ~~the transmitted AAL2~~ packet are allocated based on a VPVC and a channel identifier (CID) in the received AAL2 packet.

4. (Currently Amended) The AAL2 switch for multicast of claim 3, wherein said at least one CPS packet and ~~the~~ ~~[[a]]~~ new VPVC are stored at the predetermined address indicated by according to the routing tag information.

5. (Currently Amended) The AAL2 switch for multicast of claim 1, wherein ~~each of the memories is divided into storage areas each corresponding one of a plurality of output ports~~ addresses for storing CPS packets in each of the memories are allocated to correspond to output ports coupled to the transmitter circuits.

6. (Currently Amended) The AAL2 switch for multicast of claim 1 ~~[[5]]~~, wherein each memory area allocated for ~~of the storing CPS packets areas~~ includes:

a memory status field that stores information indicating whether a CPS packet is stored in said area,

a copy port field that stores information indicating whether the stored CPS packet is to be multicast through two or more of the transmitter circuits, and

a port area that stores the CPS packet with a new virtual path virtual channel (VPVC) generated for the stored packet based on at least one of a VPVC or a channel identifier (CID) of a received AAL2 packet.

7-9. (Canceled)

10. (Original) The AAL2 switch for multicast of claim 1, wherein the transmitter circuits each performs the searching process according to values set in a memory status field in the plurality of memories.

11. (Original) The AAL2 switch for multicast of claim 10, wherein the transmitter circuits perform the searching process according to values set at a copy port field.

12. (Currently Amended) The AAL2 switch for multicast of claim 1, wherein when said at least one CPS packet is searched, the transmitter circuits generate a new channel identifier (CID) for the searched CPS packet by using a new virtual path virtual channel (VPVC) generated for said at least one CPS packet.

13. (Currently Amended) A switching method of an AAL2 switch for multicast, the method comprising:

converting a received AAL2 packet into a common part sublayer (CPS) packet by demultiplexing the received AAL2 packet;

generating a new virtual path virtual channel (VPVC) and routing information based on VPVC and channel identifier (CID) in the received AAL2 packet;

storing the CPS packet and the new VPVC according to the routing information, the routing information indicating one or more predetermined ~~in at least one of a plurality of~~ storage areas in a memory allocated for storing the CPS packet; and

extracting the CPS packet by searching the plurality of storage areas; and

transmitting an AAL2 packet by converting the extracted CPS packet into an AAL2 packet and transmitting the AAL2 packet, wherein at least one memory stores an indication that said at least one CPS packet is to be multicast through two or more transmitter circuits, and wherein a subset of transmitter circuits transmit said AAL2 packet for multicast responsive to said indication, and wherein said received AAL2 packet is received by a single receiver circuit.

14. (Original) The switching method of claim 13, wherein the converting through transmitting steps are repeatedly performed whenever the received AAL2 packet is inputted.

15. (Original) The switching method of claim 13, wherein a memory status field of the storage area indicates whether the CPS packet is stored.

16. (Original) The switching method of claim 13, an output port where the CPS packet is sent is indicated in a copy port field of the storage area.

17. (Original) The switching method of claim 13, wherein the CPS packet and the new VPVC information is stored in at least a port area of the storage area.

18. (Original) The switching method of claim 13, wherein if the CPS packet is extracted, a new CID is generated by using a new VPVC.

19. (Currently Amended) A switching method of an AAL switch for multicast, the method comprising:

converting a received AAL2 packet into a common part sublayer (CPS) packet by demultiplexing the received AAL packet;

storing the CPS packet according to a routing information, the routing information indicating a predetermined memory address allocated for storing the CPS packet;

converting the stored CPS packet into an AAL packet, wherein the stored CPS packet contains a field configured to indicate multicast transmission using a two or more of a plurality of output ports of the AAL switch; and

transmitting the AAL packet to a plurality of different destinations using said two or more output ports according to said field.

20. (Previously Presented) The switching method of claim 19, wherein the routing information is generated based on a virtual path virtual channel (VPVC) and a channel identifier (CID) of the received AAL packet, and wherein a new VPVC is generated and stored based on the VPVC and the CID.

21. (Previously Presented) The switching method of claim 19, wherein the received AAL2 packet is received through a single one of a plurality of input ports of the AAL2 switch.

22. (Original) The switching method of claim 19, further comprising periodically searching for a memory status field and a copy port field corresponding to each of a plurality of output ports.

23. (Original) The switching method of claim 22, wherein the converting the stored CPS packet into the AAL packet extracts the corresponding to an output port where the CPS packet is allocated by the periodically searching.

24. (New) The AAL2 switch for multicast of claim 1, wherein each of the memories have predetermined address which correspond in number to a number of output ports coupled to the transmitter circuits, said predetermined addresses storing CPS packets received from corresponds ones of the receiver circuits.